

STAFF REPORT

TO: Planning and Zoning Commission **DATE:** 09/06/06(public hearing)

FROM: Scott Shuford, AICP, Planning and Development Director

SUBJECT: Zoning Ordinance Wording Amendments – (a) to establish a new steep slope and ridgetop overlay district; and (b) to establish new requirements for retaining walls.

Summary Statement: The consideration of amendments to Chapter 7 of the Code of Ordinances of the City of Asheville (UDO) to establish: (a) a new steep slope and ridgetop overlay district; and (b) new requirements for retaining walls.

Background: City Council has requested that staff develop new regulations pertaining to steep slope and ridgetop development. Steep slope and ridgetop development regulations, to be effective, must take into account a wide variety of factors. These factors include:

- ? Percent of slope
- ? Extent of grading
- ? Width of road corridors
- ? Residential density
- ? Nonresidential intensity of development
- ? Structure height
- ? Presence of uphill and downhill trees and other significant vegetation
- ? Geotechnical analysis

The following ordinance has been crafted to account for these factors. City staff has developed this ordinance by examining “best practices” in numerous communities across the country. We have also reviewed the ordinance, in an earlier draft form, with a focus group of design professionals. We have also examined development in and around Asheville to ascertain what makes some steep slope development relatively innocuous and other development conspicuous.

This ordinance is intended to replace the hillside requirements (Section 7-12-4) and augment the protected mountain ridges regulations (Section 7-12-3).

To summarize the Steep Slope and Ridgetop Overlay District ordinance, it proposes to:

- ? Define and map steep slopes and ridgetops as an overlay zoning district
- ? Apply to virtually all new development and to additions of a certain size
- ? Establish grading allowances based on degree of slope
- ? Establish road corridor width standards
- ? Provide standards for manufactured slopes
- ? Limit structure height

- ? Require preservation of trees and stands of rhododendron and mountain laurel; establish fines and replacement schedules for removal of such vegetation
- ? Provide density and intensity limits
- ? Require geotechnical analysis
- ? Require conditional use review for developments of a certain size

Additionally, since the ordinance will result in the increased construction of retaining walls to minimize grading and land disturbance, a separate ordinance regulating retaining walls has been developed in concert with this ordinance, although the retaining wall requirements will apply to a broader range of circumstances than just steep slope and ridgetop situations.

Pros

- ✍ Provides a more comprehensive and effective approach to steep slope and ridgetop development regulation.
- ✍ Provides a mechanism to address the impacts of retaining walls.

Con

- ✍ Will likely result in increased cost of development on steep slopes and ridgetops.
- ✍ Will likely add to the cost of retaining walls.
- ✍ Some projects may not be pursued due to expense of compliance.

Recommendation: Staff recommends approval of the proposed code amendment.

Sec. 7-9-11. Steep Slope and Ridgetop Overlay District

(a) *Purpose.* Asheville is in a unique geographic location where mountains, valleys, and hills constitute significant natural topographic features. The mountains and hillsides of Asheville are visible from many places in the city, adding to the quality of life for residents, and improving tourism opportunities for visitors. These areas are sensitive to development activities and measures must be taken to maintain slope stability and to control erosion and stormwater. In order to ensure the preservation of this character and the appropriate use of the hillsides, the regulations of this section are established to recognize that development of land in steep or mountainous areas involves special considerations and unique development standards.

(b) *Goals and objectives.* The Steep Slope and Ridgetop Overlay District is established to achieve the following goals and objectives:

- (1) To promote public safety by ensuring that development on steep slope and ridgetop areas addresses slope stability issues in an effective manner;
- (2) To provide greater design flexibility and efficiency in the location of development and infrastructure, including the opportunity to reduce length and width of roads, utility runs, and the amount of grading and paving;
- (3) To reduce erosion and sedimentation by the retention of existing vegetation, and the minimization of development on steep slopes and ridgetops;
- (4) To provide for the conservation and maintenance of steep slope and ridgetop areas within city jurisdiction to achieve the above-mentioned goals;
- (5) To provide opportunities for developers to minimize impacts on steep slope and ridgetop areas;
- (6) To provide standards reflecting the varying circumstances and interests of individual landowners, and the individual characteristics of their properties;
- (7) To preserve scenic views and vistas that are inherent to Asheville's character and to minimize perceived density by minimizing views of new development from within and outside of the development; and
- (8) To provide mechanisms to effectively enforce the requirements of this section.

(c) *Steep slopes and ridgetops defined.*

(1) Steep slopes are defined as:

- ? Areas at or above 2220 feet in elevation above mean sea level and having an historic grade of 15% or more; or
- ? Areas below 2220 feet in elevation above mean sea level and having an historic grade of 25% or more for properties zoned RS-2, RS-4, RS-8, RM-6, RM-8, RM-16, Resort, and Institutional.

(2) Ridgetops are defined as:

- ? Protected mountain ridges as defined in Section 7-12-3(e) of this code regardless of whether such ridges have been designated on maps filed in accordance with Section 7-12-3(g) of this code.

- (3) These areas are depicted on the City of Asheville Steep Slope and Ridgetop Overlay District map.

(d) *Application.* The provisions of this section apply in the following circumstances. Any portion of a lot, parcel, or tract of land which has been approved for development or subdivision prior to the adoption of this section shall not be included within the definition of a steep slope or ridgetop area if no further development or change to the approved subdivision or development plan is proposed within that portion of the lot, parcel, or tract of land. For the purpose of applying this provision, approval of a subdivision plat shall not constitute approval of a development plan for the individual lots in the subdivision.

- (1) Where new development is proposed for a one or two family dwelling, development requiring Level I, II or III site plan review pursuant to section 7-5-9 of this chapter, or subdivision review pursuant to section 7-5-8 of this chapter.
- (2) Additions to structures greater than 1,000 square feet or new site disturbances encompassing more than 1,000 square feet of disturbed area. These additions and site disturbances shall include smaller additions or disturbances over a three year period that accumulate to exceed the above limitations.
- (3) Substantive amendments to an approved subdivision or development plan shall require full compliance with the requirements of this section. For the purpose of this section, “substantive amendments” shall include increases in the number of lots or density or intensity of development, location of a structure or structures in areas of steeper slopes than originally approved, and similar amendments that increase the extent of development impact.

(e) *Grading.* The following requirements regulate the extent and technique of grading in the Steep Slope and Ridgetop Overlay District based on the historic grade. For the purposes of this section, “historic grade” is defined as the natural grade of the land prior to any development. It is determined as follows.

Calculation of historic grade. The applicant may submit calculations of the historic grade for the entire property; these calculations shall be sealed by a licensed surveyor, engineer, or landscape architect. If no calculations are provided, the City of Asheville will be responsible for calculating the historic grade of any property using the following formula:

$$S = \frac{.0023(I)(L)}{A}$$

Where:

S = Historic grade of parcel in percent

I = Contour interval of map in feet, with said contour intervals to be five feet or less

L = Total length of the contour lines within the parcel in feet

A = Area of the parcel in acres
0.0023 = Constant which converts square feet into acres

Once “S” is calculated it shall be rounded to the nearest whole number.

If historic grade cannot be calculated due to prior grading or development activities, it shall be estimated using best available resources by the planning and development director whose determination shall be final.

- (1) *Grading extent*. Within the areas covered by the Steep Slope and Ridgetop Overlay District, the extent of grading on a property is governed by the following table.

MAXIMUM PERCENTAGE OF SITE GRADING BY HISTORIC GRADE	
Historic Grade	Maximum Percent of Site Graded
15%-19%	45%
20%-24%	40%
25%-29%	35%
30%-34%	30%
35%-39%	25%
40% +	15%

NOTE: This table shall be interpreted in the following manner: “15% -19%” will include all slopes of 15% up to any slope less than 20%, etc.

- (2) *Road construction*. In areas of slopes greater than 25%, the corridor that is graded to contain roads, sidewalks and utilities shall not exceed 55 feet in width along 80% of its total length; up to 20% of the length of the road corridor may be graded to a maximum width of 75 feet. Retaining walls erected to meet these corridor requirements shall be located outside of public rights-of-way and shall be privately maintained.
- (3) *Manufactured slopes*. Manufactured slopes are slopes created by grading operations. Manufactured slopes shall be modulated by landscaping to create natural appearing slopes and hillsides. The minimization of retaining walls and preservation of trees is a priority for maintaining the natural appearance of manufactured slopes. Manufactured slopes shall not exceed 2:1 cut slopes and 3:1 fill slopes.

(f) *Structure height*. The maximum height of principal structures in the Steep Slope and Ridgetop Overlay District shall be limited to two stories (maximum 25 feet) on the uphill side of the structure and three stories (maximum 35 feet) on the downhill side of the structure, regardless of height allowances elsewhere in this code. For ridgetop development where structures are not located so as to have an uphill or a downhill side, the maximum height of principal structures shall be limited to two stories (maximum 25 feet). Accessory structures shall not exceed 20 feet in height on any side. For the

purpose of this section, height shall be calculated as the vertical distance from historic grade to the midpoint of the peak and eave for structures with pitched roofs and from the top of the parapet or roof surface, whichever is greater, for flat-roofed structures. An additional 12 feet in height may be allowed on the uphill and downhill sides of the principal structure if a minimum of 90% of the trees and other specified vegetation on the downhill side of the lot are preserved and identified in a recorded preservation easement, and a minimum setback of 50 feet from the downhill side property line is maintained; this provision is not available for ridgetop development. See subsection (g) below for additional information on how the provisions of this subsection are to be applied.

(g) *Tree and other specified vegetation preservation.* The following table shall be utilized to determine the extent to which trees and other specified vegetation shall be preserved on individual lots or properties located in the Steep Slope and Ridgetop Overlay District. For the purpose of this section, “trees and other specified vegetation” shall mean all native trees of four or more inches in diameter at breast height (dbh) and any mature grouping of rhododendron or mountain laurel of 250 square feet or more in area. For developments to which this section applies, a tree survey shall be required to identify the trees and other specified vegetation required to be preserved and this survey shall be recorded as a preservation easement. The tree survey shall graphically show the location of each tree and note the species and diameter at breast height. Additionally, the survey shall graphically show the location of each mature grouping of rhododendron or mountain laurel of 250 square feet or more in area. Only trees and other specified vegetation shall be shown on the survey; non-native invasive species shall not be included and may be removed. During construction, these preservation areas shall be clearly designated using tree protection fencing to protect them from disturbance.

TREE AND OTHER SPECIFIED VEGETATION PRESERVATION				
Setback of principal structure from the applicable property line	% of trees and other specified vegetation to be preserved on the uphill side		% of trees and other specified vegetation to be preserved on the downhill side or on the ridgetop	
Lot size	< one acre	one acre or >	< one acre	one acre or >
0-15 feet	25%	30%	35%	45%
16-29 feet	30%	35%	40%	50%
30-49 feet	40%	50%	50%	70%
50 feet or greater	50%	60%	60%	80%

Fines and the replacement schedule for removal of trees in recorded preservation areas, unless such trees are determined to be dead, dying or represent a threat to property by the city arborist or other designated person(s) and said removal is thereby authorized, shall be as established in the following table. Replacement trees shall be selected from the city’s list of large maturing trees and shall be of a minimum of two inches diameter at breast height. In the event that the city arborist or other designated person(s) determines that the site cannot accommodate the replacement schedule planting due to size, slope, or other related conditions, the payment of a fee-in-lieu of replacement planting shall be required at the rate of \$300 per tree and \$100 per rhododendron or mountain laurel not planted on advice of the city arborist or other designated person(s).

FINES AND REPLACEMENT SCHEDULE FOR REMOVAL OF TREES AND OTHER SPECIFIED VEGETATION		
Size of Tree or Area of Specified Vegetation Removed	Fine	Replacement Schedule
Each 100 Square Feet of Specified Vegetation Above 250 Square Feet	\$300	3 Rhododendron or Mountain Laurel (as applicable) per each 100 square feet (3 gallon minimum size)
4-8" tree (dbh)	\$300/tree	2 trees
8-12" tree (dbh)	\$500/tree	3 trees
12-16" tree (dbh)	\$700/tree	5 trees
16-20" tree (dbh)	\$1,000/tree	7 trees
Over 20" tree (dbh)	\$1,500/tree	9 trees

(h) *Density*. Densities of residential development shall be reduced in the Steep Slope and Ridgetop Overlay District to support the goals and objectives of the district.

- (1) The allowable density shall be as follows for the listed underlying zoning districts. The fractional requirements provisions of Section 7-2-3(b) shall not apply for density calculations in the steep slope overlay district.

MAXIMUM NUMBER OF UNITS PER ACRE BY HISTORIC GRADE					
Historic Grade	RS-2	RS-4	RM-6	RS-8 RM-8	RM-16 & other districts allowing residential development
15%-19%	0.9	1.8	2.7	3.6	7.2
20%-24%	0.8	1.4	2.4	3.2	5.6
25%-29%	0.7	1.0	1.7	2.8	4.2
30%-34%	0.6	0.8	1.2	2.0	3.8
35%-39%	0.4	0.6	0.8	1.2	3.0
40%	0.1	0.2	0.3	0.4	0.8

**** NOTE: The above table shall be interpreted in the following manner:**

- ? "15% -19%" will include all slopes of 15% up to any slope less than 20%, etc.
 ? 0-0.99 = no unit, 1.0 – 1.99 = 1 unit, etc.

- (2) *Existing lots or parcels*. Construction of a single-family residence shall be permitted on any lawfully established lot or parcel existing as of the date of adoption of this ordinance, even if the parcel does not meet the maximum density requirements listed in the table above. In such cases, however, the requirements of subsections (e), (f), (g) and (i) shall still apply.

- (3) *Density bonus*. A density bonus of 10% may be granted for each of the following items at the discretion of the planning and development director. A

total density bonus of up to 50% of the allowable density may be achieved under this provision.

- a. Buildings, parking, and other improvements are clustered on less steep and sensitive areas of the site to reduce the amount of grading.
- b. Grading is limited to 10% or more under the maximum allowed under subsection (e) above.
- c. Buildings and parking areas are screened by vegetation to minimize the visual impact from key viewing areas, which include the downtown central business district, the Blue Ridge Parkway, public parkland and recreational areas, and major streets and highways.
- d. Grading of roads and access drives is located outside of slopes exceeding 20%.
- e. Grading for principal structures is located completely outside of slopes exceeding 20%.

(h) *Nonresidential Development Intensity*. Intensity of nonresidential development shall be limited as follows in the Steep Slope Overlay District to support the goals and objectives of the district. For the purpose of this section, “floor area ratio” shall mean the total heated floor area of the building or buildings on a lot divided by the gross area of the lot or site.

(1) The allowable intensity shall be as follows for the listed below:

MAXIMUM FLOOR AREA RATIO BY HISTORIC GRADE OR RIDGETOP	
Historic Grade	Maximum Allowable Floor Area Ratio, Not To Exceed Structure Size Limits of The Underlying Zoning District
15%-19%	0.20
20%-24%	0.15
25%-29%	0.10
30%-34%	0.05
35%-39%	0.025
40%	0.01
Ridgetop	0.10

**** NOTE:** The above table shall be interpreted in the following manner. “15%-19%” will include all slopes of 15% up to any slope less than 20%, etc.

(2) *Intensity bonus*. An intensity bonus of 10% may be granted for each of the following items at the discretion of the planning and development director. A total intensity bonus of up to 50% of the allowable intensity may be achieved under this provision. No intensity bonus shall allow a structure of greater size than allowed under the underlying zoning district.

- a. Buildings, parking, and other improvements are clustered on less steep and sensitive areas of the site to reduce the amount of grading, including placing parking in or under the principal structure(s).

- b. Grading is limited to 10% under the maximum allowed under subsection (e) above.
- c. Buildings and parking areas are screened by vegetation to minimize the visual impact from key viewing areas which include the downtown central business district, the Blue Ridge Parkway, public parkland and recreational areas, and major streets and highways.
- d. Grading of roads and access drives is located outside of slopes exceeding 20%.
- e. Grading for principal structures is located completely outside of slopes exceeding 20%.

(i) *Geotechnical analysis required.* Development in the Steep Slope and Ridgetop Overlay district shall be required to undergo geotechnical analysis by a NC registered professional engineer to determine the stability of the underlying geology and soils to support the proposed development. The geotechnical analysis report shall be required to be submitted prior to the issuance of a building permit.

(j) *Conditional use permit required.* Regardless of the development procedures established for subdivisions and site plans elsewhere in this code, developments in the Steep Slope and Ridgetop Overlay district that contain more than four lots, more than four residential units, or more than 2,500 square feet of nonresidential floor area shall be regarded as conditional uses and shall be reviewed by the City Council in accordance with the procedures for such uses. Supplemental review standards for conditional uses in the Steep Slope and Ridgetop Overlay district shall be as follows:

- ? Accessory uses and structures shall be so located as to minimize their visibility from off-site locations.
- ? Density and intensity bonuses may be awarded by the City Council in accordance with their assessment of the development's overall impact relative to grading, tree and other significant vegetation preservation, and other standards provided herein.

Section 7-10-5. Retaining walls.

Retaining walls in excess of eight feet in height shall be faced with natural stone, brick, form-liner art or patterns, or vegetation in order to avoid a stark appearance. Foreground landscaping or attached vegetative screening of retaining walls or retaining wall sections over eight feet in height and closer than 35 feet to a public or private street shall also be required in accordance with the following standards. Foreground landscaping or attached vegetative screening in accordance with the following standards shall also be required for any retaining walls or retaining wall sections over 20 feet in height regardless of location relative to a public or private street. Attached vegetative screening shall consist of stainless steel other approved vine supports structurally integrated into the wall to support vine planting from the approved species list for such applications. Foreground landscaping or attached vegetative screening may be considered part of any required buffer, as applicable. Retaining walls 15 feet or less in height shall be exempted from the foreground landscaping or attached vegetative screening requirements if faced with natural stone.

Retaining Wall Height	Required Foreground Landscaping or Vegetative Screening (Either/Or)	
	Minimum Required Foreground Landscaping	Minimum Required Attached Vegetative Screening
>8-15 feet	5 foot wide planting strip at wall base with 3 gallon-sized bushes planted 5 feet on center	5 foot wide planting strip at wall base with attached vegetative screening supports covering 50% of wall face and plantings consisting of 2 gallon-sized vines planted 3 feet on center
>15-20 feet	5 foot wide planting strip at wall base with 3 gallon-sized bushes planted 5 feet on center plus 1 small maturing tree for every 30 linear feet	5 foot wide planting strip at wall base with attached vegetative screening supports covering 50% of wall face and plantings consisting of 2 gallon-sized vines planted 3 feet on center
>20 feet-30 feet	8 foot wide planting strip at wall base with 3 gallon-sized bushes planted 5 feet on center plus 1 small maturing tree for every 30 linear feet	5 foot wide planting strip at wall base with attached vegetative screening supports covering 60% of wall face and plantings consisting of 2 gallon-sized vines planted 3 feet on center
>30 feet	10 foot wide planting strip at wall base with 3 gallon-sized bushes planted 5 feet on center plus 1 large maturing tree for every 40 linear feet	5 foot wide planting strip at wall base with attached vegetative screening supports covering 75% of wall face and plantings consisting of 2 gallon-sized vines planted 3 feet on center